

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Cancel claims 1-3 without prejudice and substitute therefor new claims 4-33 as follows:

Listing of Claims:

In the claims:

Claims 1-3 (canceled).

4. (New) A method detecting Pin1 in a cell, comprising contacting a cell sample with a binding reagent to Pin1 and determining specific binding of said binding reagent to a polypeptide or nucleic acid within said cell sample, wherein specific binding of said binding reagent is indicative of the presence of Pin1 in said cell sample.

5. (New) The method of claim 4 wherein said binding reagent comprises a nucleic acid.

6. (New) The method of claim 5, wherein said nucleic acid comprises DNA or RNA.

7. (New) The method of claim 6, wherein in said DNA or RNA comprises an isolated nucleic acid having at least about 15 contiguous nucleotides of a nucleotide sequence substantially the same as SEQ ID NO:1.

8. (New) The method of claim 4, wherein said binding reagent comprises an antibody that selectively binds to an epitope of a Pin1 polypeptide having substantially the same amino acid sequence as SEQ ID NO:2.

9. (New) The method of claim 4, wherein said cell sample comprises a cell, tissue, biological fluid or component thereof suspected of containing a Pin1 antigen or encoding nucleic acid.

10. (New) The method of claim 4, wherein said cell sample comprises a human cell sample.

11. (New) The method of claim 10, wherein said cell sample comprises a hyperproliferative cell.

12. (New) The method of claim 11, wherein said hyperproliferative cell is cancer.

13. (New) The method of claim 12, wherein said cancer is selected from the group consisting of lung, breast, lymphoid, gastrointestinal, genito-urinary tract, adenocarcinoma, colon, renal-cell carcinoma, prostate, leukemia, non-small cell carcinoma of the lung, cancer of the small intestine, and cancer of the esophagus.

14. (New) A method of detecting a cell proliferative disorder, comprising contacting a cell sample with a binding reagent to Pin1 and measuring the amount of Pin1 in said sample, wherein a change in the amount of Pin1 in said sample compared to a sample from a normal cell indicates the presence of a cell proliferative disorder.

15. (New) The method of claim 14, wherein said binding reagent comprises a nucleic acid.

16. (New) The method of claim 15, wherein said nucleic acid comprises DNA or RNA.

17. (New) The method of claim 13, wherein in said DNA or RNA comprises an isolated nucleic acid having at least about 15 contiguous nucleotides of a nucleotide sequence substantially the same as SEQ ID NO:1.

18. (New) The method of claim 14, wherein said binding reagent comprises an antibody that selectively binds to an epitope of a Pin1 polypeptide having substantially the same amino acid sequence as SEQ ID NO:2.

19. (New) The method of claim 14, wherein said change comprises an increase in said amount of Pin1 compared to said normal sample.

20. (New) The method of claim 14, wherein said increase in said Pin1 amount is characterized by an inhibition of a mitosis promoting activity of NIMA.

21. (New) The method of claim 19, wherein said increase in said Pin1 amount is characterized by cell growth arrest in G2.

22. (New) The method of claim 19, wherein said cell proliferative disorder is characterized by a hyperproliferative disorder.

23. (New) The method of claim 22, wherein said hyperproliferative disorder is cancer.

24. (New) The method of claim 23, wherein said cancer is selected from the group consisting of lung, breast, lymphoid, gastrointestinal, genito-urinary tract,

adenocarcinoma, colon, renal-cell carcinoma, prostate, leukemia, non-small cell carcinoma of the lung, cancer of the small intestine, and cancer of the esophagus.

25. (New) The method of claim 19, wherein said cell proliferative disorder is characterized by a non-malignant hyperproliferative disorder.

26. (New) The method of claim 25, wherein said non-malignant hyperproliferative disorder comprises an immunologically-related cell-proliferative disease.

27. (New) The method of claim 26, wherein said immunologically-related cell-proliferative disease is selected from the group consisting of psoriasis, pemphigus vulgaris, Bechet's syndrome, acute respiratory distress syndrome (ARDS), ischemic heart disease, post-dialysis syndrome, rheumatoid arthritis, acquired immune deficiency syndrome, vasculitis, lipid histiocytosis, septic shock and inflammation.

28. (New) The method of claim 14, wherein said change comprises a decrease in said amount of Pin1 compared to said normal sample.

29. (New) The method of claim 23, wherein said decrease in said Pin1 amount is characterized by an induced entry of cells into mitosis.

30. (New) The method of claim 28, wherein said decrease in said Pin1 amount is characterized by mitotic arrest or apoptosis.

31. (New) The method of claim 30, wherein said mitotic arrest or apoptosis is characterized by nuclear fragmentation.

32. (New) The method of claim 14, wherein said cell sample comprises a cell, tissue, biological fluid or component thereof suspected of containing a Pin1 antigen or encoding nucleic acid.

33. (New) The method of claim 14, wherein said cell sample comprises a human cell sample.